## **CLAIMS**

Now, therefore, the following is claimed:

1	1. A system for automatically routing power in an integrated circuit, the
2	system comprising:
3	memory for storing data defining a representation of an integrated circuit
4	having a power contact and a power connection; and
5	logic configured to analyze the data and to automatically route power from the
6	power connection to the power contact.
1	2. The system of claim 1, wherein the data defines a design block of the
2	integrated circuit, the design block comprising the power contact.
1	3. The system as claimed in claim 2, wherein the data further comprises
2	boundary box data defining a region that comprises a plurality of signal routes.
1	4. The system as claimed in claim 3, wherein the logic is further
2	configured to automatically route power from the power connection to the power
3	contact thereby circumventing the region defined by the boundary box data.
1	5. A system for automatically routing power in an integrated circuit, the
2	system comprising:
3	a dataset indicative of the characteristics of a design block corresponding to an
4	integrated circuit (IC); and

- logic configured to extract from the dataset a first value indicative of a location of the design block and a second value indicative of a second location of one power contact, the logic further configured to automatically design routing of power to the one power contact based upon the first value and the second value.
- 1 6. The system of claim 5, wherein the dataset comprises a subset of data
  2 indicative of a metal interconnect layer, the subset of data comprising a third value
  3 indicative of a boundary box defining a region that is reserved for signal routing
  4 within the design block.
- 7. The system of claim 6, wherein the logic is further configured to design a route circumventing the boundary box defining the region that is reserved for signal routing within the design block.
- 1 8. A system for automatically routing power in an integrated circuit, the 2 system comprising:
- means for storing data defining a representation of an integrated circuit having
  a power contact and a power connection;
- 5 means for analyzing the data; and
- 6 means for automatically routing power from the power connection to the 7 power contact.
- 9. A computer program for automatically routing power in an integrated circuit, the computer program being embodied on a computer-readable medium, the program comprising:

- 4 logic for storing data defining a representation of an integrated circuit having a power contact and a power connection; 5 logic for analyzing the data to determine the location of a power connection 6 and a power contact; 7 logic for automatically routing power from the power connection to the power 8 contact; and 9 logic for creating a representation of the power routing. 10 1 10. A method for automatically routing power in an integrated circuit, the 2 method comprising the steps of: extracting from a dataset comprising a plurality of values indicative of a design 3 of an IC design block a first value indicative of a location of the design block and a 4 second value indicative of a second location of a power contact within the design 5 block; and 6 7 automatically designing routing to provide power to the power contact based upon the first value and the second value. 8 1 11. The method of claim 10, wherein the dataset comprises a subset of data 2 indicative of a metal interconnect layer, the subset of data comprising a third value indicative of a boundary box defining a region that is reserved for signal routing 3 within the design block. 4 12. 1 The method of claim 11, further comprising the step of designing 2 power routing circumventing the boundary box defining the region that is reserved for
  - 24

signal routing within the design block.

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method comprising the steps of: 2 3 storing data defining a representation of an integrated circuit having a power contact and one power connection; 4 analyzing the data to determine the location of the power connection and the 5 power contact; 6 7 automatically routing power from the power connection to the power contact; 8 and 9 creating a representation of the power routing. 1 14. The method of claim 13, wherein the data defines a design block of the 2 integrated circuit, the design block comprising the power contact. 15. The method of claim 14, wherein the data further comprises boundary 1 2 box data defining a region that comprises a plurality of signal routes. 16. 1 The method of claim 15, further comprising the step of automatically routing power from the power connection to the power contact and circumventing the 2 3 region defined by the boundary box data. 17. The method of claim 14, wherein the analyzing step further comprises 1 the steps of: 2 extracting a first set of values from the data indicative of a first location of the 3 design block in the integrated circuit; 4

A method for automatically routing power in an integrated circuit, the

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- 5 extracting a second set of values from the data indicative of a second location
- 6 corresponding to the power contact; and
- 7 extracting a third set of values from the data indicative of a third location
- 8 corresponding to a boundary box.
- 1 18. The method of claim 17, wherein the integrated circuit comprises a
- 2 plurality of metal interconnect layers and a transistor layer and the design block
- 3 encompasses a portion of the transistor layer and one of the plurality of metal
- 4 interconnect layers located adjacent to the transistor layer.
- 1 19. The method of claim 18, further comprising
- designing a power route connecting the plurality of metal interconnect layers
- 3 based upon the location of the design block; and
- designing the power route to connect the plurality of metal interconnect layers
- to the power contact of the design block based upon the location of the power contact
- 6 and the location of the boundary box.